

Appl. No. : 10/722,306
Filed : November 24, 2003

AMENDMENTS TO THE CLAIMS

1-20. (Cancelled)

21. (Previously Presented) A medical device comprising a first medical device portion comprising a first tissue contacting surface that is configured to undergo a time dependent variation in surface charge at a site of contact with a host, in response to a time dependent signal.

22. (Previously Presented) The medical device of Claim 21, wherein said variation in surface charge guides the migration of selected cell types.

23. (Previously Presented) The medical device of Claim 22, wherein said variation in surface charge guides endothelial cells.

24. (Previously Presented) The medical device of Claim 22, wherein said variation in surface charge guides fibroblasts.

25. (Previously Presented) The medical device of Claim 21, wherein said medical device is configured for subdermal implantation

26. (Previously Presented) The medical device of Claim 25, wherein said medical device is configured for vascular implantation ~~in a vascular structure~~.

27. (Previously Presented) The ~~therapeutic system~~ medical device of Claim 21, wherein said time dependent signal produces a current density through host tissue or body fluids of between 0.01 and 100 mA/cm².

28-36. (Cancelled)

37. (New) The medical device of Claim 21, wherein said device comprises:

one or more first electrodes subdermally located in the close proximity of a critical structure or feature of a device introduced into the body;

one or more second electrodes located elsewhere; and

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control circuitry and power supply to provide for the passage of an electrical current through tissue between the first set of electrodes to the second set of electrodes for the purpose of minimizing encapsulation.

38. (New) The medical device of claim 37 wherein one or more first electrodes is affixed to the device.

39. (New) The medical device of claim 37 wherein one or more second electrodes is affixed to the device.

40. (New) The medical device of claim 37 wherein one or more first electrodes is not affixed to the device.

41. (New) The medical device of claim 37 wherein one or more second electrodes is not affixed to the device.

42. (New) The medical device of claim 37 wherein the device is percutaneous in nature.

43. (New) The medical device of claim 37 wherein the device is fully implanted.

44. (New) The medical device of claim 37 wherein one or more first electrodes is separated from tissue by a semipermeable structure.

45. (New) The medical device of claim 37 wherein the device is used for the purpose of therapeutic agent delivery.

46. (New) The medical device of claim 37 wherein the device is used for the purpose of sampling of biofluids for analytes.

47. (New) The medical device of Claim 21, wherein said first tissue contacting surface is configured for fluidic contact with tissue.